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			ART UNIT	PAPER NUMBER

1744

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/743,261

Applicant(s)

CHEN ET AL.

Examiner

Shay L. Balsis

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 15-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 31-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/13/05, 6/10/05, 4/29/05, 11/23/04, 7/15/04, 6/23/04, 2/22/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings were received on 6/23/04. These drawings are acceptable.

### ***Election/Restrictions***

Applicant's election of claims 1-14 and 31-44 in the reply filed on 5/18/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim 15-30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected embodiment, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 5/18/06.

### ***Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-2, 5, 9, 11-12, 14, 31-32, 36-38, 40-41 and 43 are rejected under 35**

**U.S.C. 102(b) as being anticipated by Vosbikian et al. (USPN 2678458).**

With regards to claim 1, Vosbikian teaches a handle (not labeled but is inserted into reference number 9) and a mop head (7, 8) having a handle attachment surface (9), wherein the handle is attached to the handle attachment surface. There is a disposable wipe (1) attached to the mop head, wherein the wipe is configured to be removed from the mop head by a user of the mop. It is considered to be disposable since, after use, it can be removed from the head and thrown away. The wipe engages a cleaning surface and removes unwanted material from the surface to be cleaned. There is further a squeegee blade (4, 5) attached to the wipe, wherein the blade removed excess fluid from the surface to be cleaned.

With regards to claim 2, the wipe is indirectly attached to the handle attachment surface of the mop head (figure 1 and 2).

With regards to claim 5, the squeegee blade is made from a rubber material (col. 2, lines 11-17).

With regards to claim 9, the squeegee blade and the wipe are both capable of being used simultaneously when cleaning the surface to be cleaned. The mop could be used so that long vertical side of the wipe is in perpendicular contact with the cleaning surface, thus causing the blade to contact the cleaning surface at the same time.

With regards to claims 11 and 12, the wipe can be used in dry or wet form. When used dry, the wipe could be used to absorb liquids that might have been spilled on the cleaning

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surface. When used wet, the cleaning surface can be cleaned using a cleaning solution as shown in figure 2.

With regards to claim 14, the squeegee blade is deformable as shown in figure 2.

With regards to claim 31, Vosbikian teaches a cleaning apparatus for use with a tool (7, 8, 9). The apparatus comprises a disposable wipe (1) attached to the tool, wherein the wipe is configured to be removed from the tool by a user of the mop. It is considered to be disposable since, after use, it can be removed from the head and thrown away. The wipe engages a cleaning surface and removes unwanted material from the surface to be cleaned. There is further a squeegee blade (4, 5) attached to the wipe, wherein the blade removed excess fluid from the surface to be cleaned.

With regards to claim 32, the squeegee blade is made from a rubber material (col. 2, lines 11-17).

With regards to claim 36, the squeegee blade is attached to the upper longitudinal side ends of the wipe (figure 1).

With regards to claim 37, the blade comprises a tip that does not contact the wipe when the apparatus is used to clean the surface to be cleaned. The tip extends away from the wipe and therefore will never contacts the wipe.

With regards to claim 38, the squeegee blade and the wipe are both capable of being used simultaneously when cleaning the surface to be cleaned. The mop could be used so that long vertical side of the wipe is in perpendicular contact with the cleaning surface, thus causing the blade to contact the cleaning surface at the same time.

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With regards to claims 40 and 41, the wipe can be used in dry or wet form. When used dry, the wipe could be used to absorb liquids that might have been spilled on the cleaning surface. When used wet, the cleaning surface can be cleaned using a cleaning solution as shown in figure 2.

With regards to claim 43, the squeegee blade is deformable as shown in figure 2.

**Claims 1-2, 8-9, 11-12, 14, 31, 35-38, 40-41 and 44 are rejected under 35**

**U.S.C. 102(b) as being anticipated by Graham (USPN 4455705).**

With regards to claim 1, Graham teaches a handle (element 36 facilitates attachment of elongated handle, col. 4, lines 3-7) and a mop head (30) having a handle attachment surface (25, 36), wherein the handle is attached to the handle attachment surface. There is a disposable wipe (16) attached to the mop head, wherein the wipe is configured to be removed from the mop head by a user of the mop. It is considered to be disposable since, after use, it can be removed from the head and thrown away. The wipe engages a cleaning surface and removes unwanted material from the surface to be cleaned. There is further a squeegee blade (10, 40) attached to the wipe, wherein the blade removed excess fluid from the surface to be cleaned.

With regards to claim 2, the wipe is indirectly attached to the handle attachment surface of the mop head (figure 1 and 2).

With regards to claim 8, the squeegee blade is attached to the wipe by mechanical fasteners (20).

With regards to claim 9, the squeegee blade and the wipe are both capable of being used simultaneously when cleaning the surface to be cleaned. The mop could be used so that long

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vertical side of the wipe is in perpendicular contact with the cleaning surface, thus causing the blade to contact the cleaning surface at the same time (as shown in figure 3)

With regards to claims 11 and 12, the wipe can be used in dry or wet form. When used dry, the wipe could be used to absorb liquids that might have been spilled on the cleaning surface or can be used abrasively to remove scuffs on the cleaning surface. When used wet, the wipe absorbs cleaning solution and thus helps to clean the cleaning surface.

With regards to claim 14, the squeegee blade of Graham is deformable since it is capable of bending. While the material used is not disclosed, the definition of a squeegee according to Merriam-Webster's Dictionary, 10<sup>th</sup> Edition is "a blade of leather or rubber set on a handle" and therefore, both leather and rubber are deformable.

With regards to claim 31, Graham teaches a cleaning apparatus for use with a tool (25, 30). The apparatus comprises a disposable wipe (16) attached to the tool, wherein the wipe is configured to be removed from the tool by a user of the mop. It is considered to be disposable since, after use, it can be removed from the head and thrown away. The wipe engages a cleaning surface and removes unwanted material from the surface to be cleaned. There is further a squeegee blade (10, 40) attached to the wipe, wherein the blade removed excess fluid from the surface to be cleaned.

With regards to claims 35 and 44, the squeegee blade is attached to the wipe by mechanical fasteners (20) such as a hook and loop type fastener.

With regards to claim 36, the squeegee blade is attached to an upper end of the wipe (figure 1).

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With regards to claim 37, the blade comprises a tip that does not contact the wipe when the apparatus is used to clean the surface to be cleaned. The tip extends away from the wipe and therefore will never contacts the wipe.

With regards to claim 38, the squeegee blade and the wipe are both capable of being used simultaneously when cleaning the surface to be cleaned. The mop could be used so that long vertical side of the wipe is in perpendicular contact with the cleaning surface, thus causing the blade to contact the cleaning surface at the same time (as shown in figure 3).

With regards to claims 40 and 41, the wipe can be used in dry or wet form. When used dry, the wipe could be used to absorb liquids that might have been spilled on the cleaning surface or can be used abrasively to remove scuffs on the cleaning surface. When used wet, the wipe absorbs cleaning solution and thus helps to clean the cleaning surface.

**Claims 1-2, 5-6, 8, 11-12, 14, 31-33, 35-37, 40-41 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Leland (USPN 3526918).**

With regards to claim 1, Leland teaches a handle (28) and a mop head (20) having a handle attachment surface (18), wherein the handle is attached to the handle attachment surface. There is a disposable wipe (13) attached to the mop head, wherein the wipe is configured to be removed from the mop head by a user of the mop. It is considered to be disposable since, after use, it can be removed from the head and thrown away. The wipe engages a cleaning surface and removes unwanted material from the surface to be cleaned. There is further a squeegee blade (14, 16) attached to the wipe, wherein the blade removed excess fluid from the surface to be cleaned.



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With regards to claim 2, the wipe is indirectly attached to the handle attachment surface of the mop head (figure 3).

With regards to claim 5, the squeegee blade is made from rubber (col. 2, lines 56-64).

With regards to claim 6, the squeegee blade has a pair of ends that are curved in towards one another (figures 2 and 3 show that the short sides of the blade are curved in towards the middle).

With regards to claim 8, the squeegee blade is attached to the wipe by an adhesive (col. 2, lines 44-48).

With regards to claims 11 and 12, the wipe can be used in dry or wet form. When used dry, the wipe could be used to absorb liquids that might have been spilled on the cleaning surface or can be used abrasively to remove scuffs on the cleaning surface. When used wet, the wipe absorbs cleaning solution and thus helps to clean the cleaning surface.

With regards to claim 14, the squeegee blade is deformable since it is made from a resilient material such as rubber (col. 2, lines 56-65).

With regards to claim 31, Leland teaches a cleaning apparatus for use with a tool (18, 20). The apparatus comprises a disposable wipe (13) attached to the tool, wherein the wipe is configured to be removed from the tool by a user of the mop. It is considered to be disposable since, after use, it can be removed from the head and thrown away. The wipe engages a cleaning surface and removes unwanted material from the surface to be cleaned. There is further a squeegee blade (14, 16) attached to the wipe, wherein the blade removed excess fluid from the surface to be cleaned.

With regards to claim 32, the squeegee blade is made from rubber (col. 2, lines 56-64).

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With regards to claim 33, the squeegee blade has a pair of ends that are curved in towards one another (figures 2 and 3 show that the short sides of the blade are curved in towards the middle).

With regards to claims 35, the squeegee blade is attached to the wipe by an adhesive (col. 2, lines 44-48).

With regards to claim 36, the squeegee blade is attached to an upper end of the wipe (figure 3).

With regards to claim 37, the blade comprises a tip that does not contact the wipe when the apparatus is used to clean the surface to be cleaned. The tip extends away from the wipe and therefore will never contacts the wipe.

With regards to claims 40 and 41, the wipe can be used in dry or wet form. When used dry, the wipe could be used to absorb liquids that might have been spilled on the cleaning surface or can be used abrasively to remove scuffs on the cleaning surface. When used wet, the wipe absorbs cleaning solution and thus helps to clean the cleaning surface.

With regards to claim 43, the squeegee blade is deformable since it is made from a resilient material such as rubber (col. 2, lines 56-65).

**Claims 1-2, 5, 9, 11-12, 14, 31-32, 36-38, 40-41 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Pfeifer (DE 2643717).**

With regards to claim 1, Pfeifer teaches a handle (3) and a mop head (1) having a handle attachment surface (surface with element 2 connects to), wherein the handle is attached to the handle attachment surface. There is a disposable wipe (4) attached to the mop head, wherein the wipe is configured to be removed from the mop head by a user of the mop. It is considered to be

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disposable since, after use, it can be removed from the head and thrown away. The wipe engages a cleaning surface and removes unwanted material from the surface to be cleaned. There is further a squeegee blade (5) attached to the wipe, wherein the blade removed excess fluid from the surface to be cleaned.

With regards to claim 2, the wipe is attached to the handle attachment surface of the mop head (figure 2).

With regards to claim 5, the squeegee blade is made from rubber (abstract).

With regards to claim 9, the wipe and blade are capable of being used simultaneously when cleaning the surface to be cleaned since the major part of the wipe and the blade are located on the same plane.

With regards to claims 11 and 12, the wipe can be used in dry or wet form. When used dry, the wipe could be used to absorb liquids that might have been spilled on the cleaning surface or can be used abrasively to remove scuffs on the cleaning surface. When used wet, the wipe absorbs cleaning solution and thus helps to clean the cleaning surface.

With regards to claim 14, the squeegee blade is deformable since it is made from a resilient material such as rubber (abstract).

With regards to claim 31, Pfeifer teaches a cleaning apparatus for use with a tool (1, 2, 3). The apparatus comprises a disposable wipe (4) attached to the tool, wherein the wipe is configured to be removed from the tool by a user of the mop. It is considered to be disposable since, after use, it can be removed from the head and thrown away. The wipe engages a cleaning surface and removes unwanted material from the surface to be cleaned. There is further a

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squeegee blade (5) attached to the wipe, wherein the blade removed excess fluid from the surface to be cleaned.

With regards to claim 32, the squeegee blade is made from rubber (abstract).

With regards to claim 36, the squeegee blade is attached to the top end of the wipe (figure 2).

With regards to claim 37, the blade comprises a tip that does not contact the wipe when the apparatus is used to clean the surface to be cleaned. The tip extends away from the wipe and therefore will never contacts the wipe.

With regards to claim 38, the wipe and blade are capable of being used simultaneously when cleaning the surface to be cleaned since the major part of the wipe and the blade are located on the same plane.

With regards to claims 40 and 41, the wipe can be used in dry or wet form. When used dry, the wipe could be used to absorb liquids that might have been spilled on the cleaning surface or can be used abrasively to remove scuffs on the cleaning surface. When used wet, the wipe absorbs cleaning solution and thus helps to clean the cleaning surface.

With regards to claim 43, the squeegee blade is deformable since it is made from a resilient material such as rubber (abstract).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfeifer ('717).**

Pfeifer teaches all the essential elements of the claimed invention including that one end of the wipe is attached to the handle attachment surface of the mop head, the wipe then wraps around a portion of the mop head such that the opposite end of the disposable wipe is also attached to the handle attachment surface of the mop head (claim 4). Pfeifer however fails to teach that the squeegee blade is located on the handle attachment surface (claims 3 and 4). In the figures, it is shown that the blade is located on the bottom portion of the mop head and not on the handle attachment surface. However, it is known in the art to use mop heads of various sizes for different jobs. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a smaller mop head with the wipe of Pfeifer since the blade would then be capable of being on the handle attachment surface because the wipe would wrap further around the mop head.

**Claims 5 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham ('705) or Vosbikian ('458) both in view of Leland ('918).**

Graham or Vosbikian teach all the essential elements of the claimed invention however fail to teach that the squeegee blade is made from a rubber, polyolefin plastic, deformable plastic, elastomer or foam (claims 5 and 32). Leland teaches a squeegee blade made from a rubber material (col. 2, lines 56-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Graham or Vosbikian so that their blades are made from a rubber material as taught by Leland since rubber will allow the blades to conform two dimensionally to the curvatures of the surface being cleaned (col. 2, lines 60-63), thus removing any excess fluid.

**Claims 7 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham ('705), Vosbikian ('458), Leland ('918) or Pfeifer ('717) all in view of Anderson (USPN 2155462).**

Graham, Vosbikian, Leland or Pfeifer teach all the essential elements of the claimed invention however fail to teach that the squeegee blade has a plurality of ribbed features located thereon (claims 7 and 34). Anderson teaches a combination tool with a sponge and a squeegee blade (figure 2). The squeegee blade has ribs on the outer surface (8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the outer surface of the squeegee blades of Graham, Vosbikian, Leland or Pfeifer with a ribbed surface as taught by Anderson since the ribbed surface increases the number of wiping edges on the blade and therefore increases the efficiency of removing moisture from the surface to be cleaned (col. 2, lines 15-20).

**Claims 10 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfeifer ('717) all in view of Brown et al. (USPN 6550639).**

Pfeifer teaches all the essential elements of the claimed invention however fails to teach that the wipe is an electrostatically treated web. Brown teaches a cleaning sheet that is electrostatically charged (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wipe of Pfeifer so that is it electrostatically charged as taught by Brown since electrostatic charge enhances the ability of the cleaning sheet to attract, collect, trap and retain debris during the cleaning process (col. 4, lines 56-59).

**Claims 13 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham ('705), Vosbikian ('458), Leland ('918) or Pfeifer ('717) all in view of Kosaka et al. (USPN 6608118).**

Graham, Vosbikian, Leland or Pfeifer teach all the essential elements of the claimed invention however fail to teach that a melamine based foam attached to the squeegee blade. Kosaka teaches a wiper comprising a melamine-molded foam (col. 1, lines 9-12, lines 34-36; col. 2, lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the blades of Graham, Vosbikian, Leland or Pfeifer with a melamine based foam as taught by Kosaka since wipers or blades with the melamine molded foam attached show an excellent dirt-removing ability without damaging the surface to be washed, and have an excellent durability (col. 2, lines 1-5).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Balsis whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Slb  
7/20/06